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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,252	02/24/2005	Holger Luthje	SPM-381-A	8748

7590 11/13/2006  
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EXAMINER

DAVIS, OCTAVIA L

ART UNIT PAPER NUMBER

2855

DATE MAILED: 11/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/511,252	Applicant(s) LUTHJE ET AL.	
	Examiner Octavia Davis	Art Unit 2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/8/04, 12/2/04</u> . | 6) <input type="checkbox"/> Other: ____  |

### DETAILED ACTION

Acknowledgment is made of applicant's preliminary amendment filed 10/8/04.

#### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 – 5, 7 – 11, 13 – 16 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Wallace et al (5,769,581).

Regarding claims 1 and 4, Wallace et al disclose direct tension indicating washers comprising force application elements 50, 53 (See Col. 3, lines 62 – 66), an indicator 30 (See Col. 4, lines 18 – 20) and a material layer 64 including flat protruberances 12 and indentations 16 (See Col. 3, lines 25 – 28).

Regarding claim 2, the force sensory effect consists in a change of resilience of the layer 64 as a result of the applied force (See Col. 5, lines 27 – 34).

Regarding claim 3, the layer 64 is of silicone and the indicator 30 is made of carbon steel (See Col. 5, lines 9 – 13).

Regarding claim 5, the indicator 30 includes an upper side 14 and a lower side 18 (See Col. 3, lines 25 – 28), the side 18 includes the material layer 64 (See Col. 4, lines 57 – 67).

Regarding claim 7, the indicator 30 is shaped in the form of a disk and includes an opening formed therein (See Col. 3, lines 28 – 29).

Regarding claims 8 – 12, the protruberances 12 are separately located on a surface of the indicator 30 and have a rounded shaped (See Col. 5, lines 27 – 36, See Fig. 5).

Regarding claim 13, the indicator 30 is located in a recess 44 (See Col. 3, lines 46 – 48, See Fig. 6).

Regarding claims 14 – 16, the indicator 30 has an opening that includes a coating (See Col. 3, lines 29 – 30, 52 – 61 and Col. 5, lines 9 – 14).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6, 12, 17 and 18 are rejected under 103(a) as being unpatentable over Wallace et al in view of Walton (5,291,789).

Regarding claims 6, 12, 17 and 18, Wallace et al disclose all of the limitations of these claims except for an electrically insulating layer, the prominence areas being electrically separated and providing an electrical circuit. However, Walton discloses a load indicating device comprising electrically conductive contact elements 24, 25 that are electrically insulated from the main body of a fastener and that include insulating sleeves that engage a head 23 and nut force application assembly (See Col. 4, lines 20 – 28) and an electric circuit is provided (See Col. 4, lines 36 – 40 and 46 – 51).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wallace et al according to the teachings of Walton for the purpose of, advantageously providing a method to indicate the load to which a member is subjected that includes an indicating means which gives an electrical signal when the stress to the main body of the fastener exceeds a predetermined value (See Walton, Col. 2, lines 24 – 32).

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hirst (4,525,114) discloses a fastener device.

Goodwin (5,615,575) discloses a drive tool with a sensor for fastener deflection during tightening and clamping a force validator.

Walton (5,291,789) discloses a load indicator.

Meisterling (5,461,923) discloses an acoustic transducer, transducer wired fastener and method of manufacture.

Payne (4,170,163) discloses a visual indicator.

Payne (4,002,139) discloses a strain indicator.

Fenech (6,932,044) discloses a windage tray with improved captured nut.

Schatz (2003/0039527A1) discloses a connecting element in the form of a screw, nut or washer for a screw connection, and method for the tightening thereof.

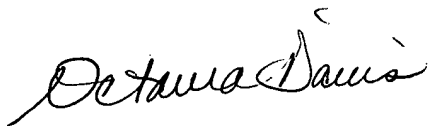
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Octavia Davis whose telephone number is 571-272-2176. The examiner can

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normally be reached on Mon through Thurs from 9 to 5. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz, can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



OD/2855

11/7/06



**MICHAEL CYGAN, PH.D.**  
**PRIMARY EXAMINER**